

A Perspective in Modernizing Information Technology Acquisition Process Across DoD

Strategic Imperatives and Focus Areas for FY10

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ASD(NII)/DoD CIO Mission



Vision

Deliver the Power of Information

An agile enterprise empowered by access to and sharing of timely and trusted information

Mission

Enable Net-Centric Operations

Lead the Information Age transformation that enhances the Department of Defense's efficiency and effectiveness

Goals

Information on Demand

Build the Net
Populate the Net
Operate the Net
Protect the Net

Outcome

People, processes, and technology working together to enable timely and trusted

Access to information
Sharing of information
Collaboration among those involved



DoD Acquisition is Front & Center



- President Obama on new helicopters -- "...I think it is an example of the procurement process gone amok. And we're going to have to fix it."
- Sen. John McCain, R-Ariz., said addressed procurement cost overruns -- "We have to make some tough decisions about not only what we procure, but how we procure it." (24 Feb 09)
- Secretary of Defense Robert Gates -- *It is time to think hard about how to institutionalize the procurement of capabilities to get them fielded quickly --- the issue becomes how do we build innovative thinking and flexibility into the rigid procurement system (Jan, 09)*



Congressional Direction



2008 National Defense Authorization Act

- Conduct a Defense Science Board (DSB) to:
 - DOD policies and procedures for acquiring information technology, to include national security systems, major automated information systems and business information systems, and other information technology
 - Roles and responsibilities in implementing policies and procedures
 - Application of such policies and procedures to information technologies that are an integral part of critical weapons or weapon systems
 - Suitability of DOD acquisition regulations, including DODD 5000.1, DODI 500.2, and accompanying milestones, to the acquisition of IT systems
 - Adequacy and transparency of metrics used by DOD for acquiring IT systems
 - Adequacy of operational and development test resources (including infrastructure and personnel), policies, and procedures



DSB Report Provided to Congress



Report of the
Defense Science Board
Task Force on

Department of Defense Policies and Procedures for the Acquisition of Information Technology

March 2009

Office of the Under Secretary of Defense
For Acquisition, Technology, and Logistics
Washington, D.C. 20301-3140

Panel Co-Chairs

Vince Vitto,* Private Consultant
Ron Kerber,* Private Consultant

Panel Members

Pricilla Guthrie, IDA
Paul Hoeper, Private Consultant
Paul Kaminski,* Technovation
Tony Lengerich, Oracle
Noel Longuemare, Private
Consultant
Mark Maybury, MITRE
Richard Roca, JHU APL
John Stenbit, Private Consultant
Alan Wade, Private Consultant

* DSB Members



The Problem



- From Warfighter
 - What we've learned in Iraq and Afghanistan from the operational commanders -- there is an **unquenchable thirst for information**. Not only ISR platforms but fusion capabilities and the tremendous demand placed on all the services for information, intelligence, network management professionals, to deploy forward to be able to deliver that capability to the operational commanders
- From Leadership
 - Hon John Grimes (Former ASD(NII)/DoD(CIO), May, 2008
"Hardware development processes ill-suited to IT acquisition"
 - LTG Charles Croom (Former DISA Commander), June 2008
"I would change the acquisition process in how the DoD buys IT in a New York minute...."
 - LTG Jeff Sorenson (Army CIO/G-6), May 2008
"How we can make it better.... Policy – Acquiring IT not like tanks"
- From Strategic "Think Tanks"
 - Many organizational structures and processes, initially constructed to maintain a cold war superpower in the industrial age, are inappropriate for 21st century missions in an information age (CSIS, March, 2004)



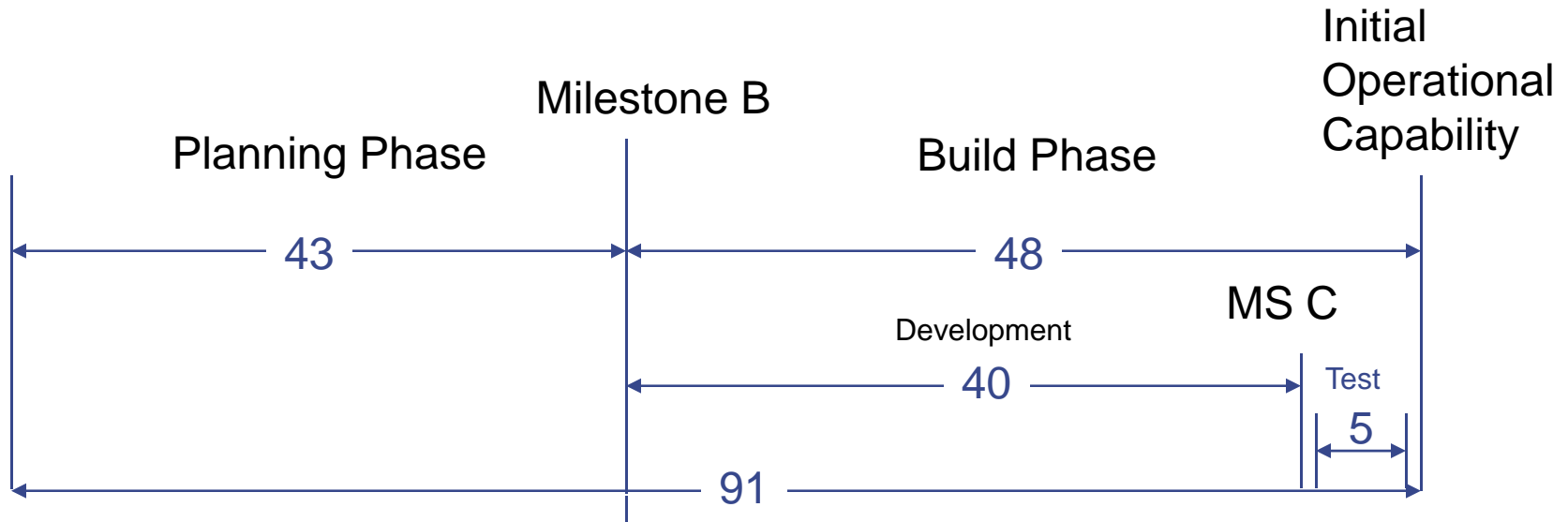
DSB Conclusion



"There is growing concern within Congress and among Department of Defense (DOD) leadership that the nations' military advantage may be eroding. The deliberate process through which weapon systems and information technology are acquired by DOD cannot keep pace with the speed at which new capabilities are being introduced in today's information age -- and the speed with which potential adversaries can procure, adapt, and employ those same capabilities against the United States."



DoD's IT Acquisition Cycle Time



*(in months) metrics calculated by OASD(NII) on 32 Major Automated Information Systems (MAIS)



Latest From Congress

FY10 Conference Report (Oct 7, 2009)



- **Section 804 – Implementation of New Acquisition Process for Information Technology Systems**
 - **NEW ACQUISITION PROCESS REQUIRED** —The Secretary of Defense shall develop and implement a new acquisition process for information technology systems
 - Be based on the recommendations in Chapter 6 of the March 2009 report of the DSB Task Force on DoD and Procedures for the Acquisition of Information Technology
 - be designed to include—
 - (A) early and continual involvement of the user;
 - (B) multiple, rapidly executed increments or releases of capability;
 - (C) early, successive prototyping to support an evolutionary approach;
 - (D) a modular, open-systems approach



Latest From Congress (Cont'd)

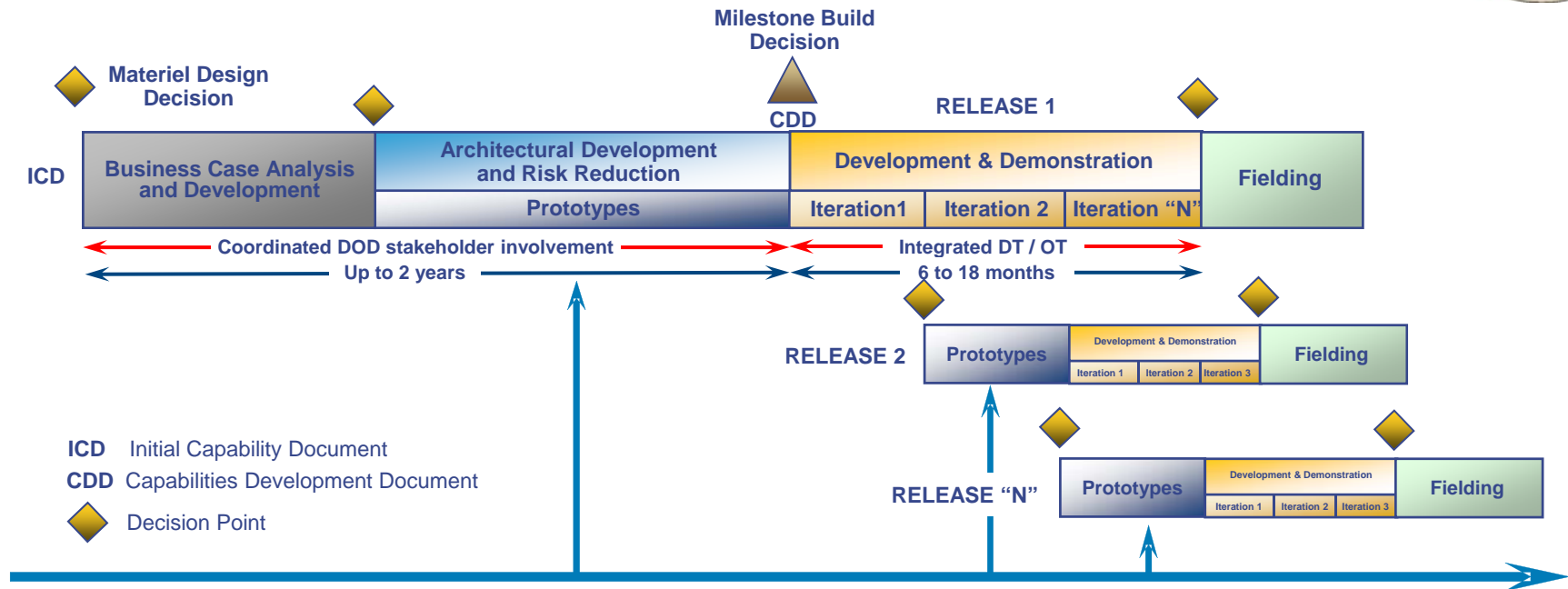


- **Section 804 – Implementation of New Acquisition Process for Information Technology Systems**
 - **Not later than 270 days after the date of the enactment of this Act, the Secretary of Defense shall submit to the Committees on Armed Services of the Senate and the House of Representatives; The report shall, at a minimum—**
 - Describe the new acquisition process
 - Provide an explanation for any decision by the Secretary to deviate from Section 804
 - Provide a schedule for the implementation of the new acquisition process
 - Identify the categories of information technology acquisitions to which such process will apply
 - Include the Secretary's recommendations for any legislation that may be required to implement the new acquisition process



Dynamic & Agile Acquisition Model

Chapter 6 of March 2009 DSB Report

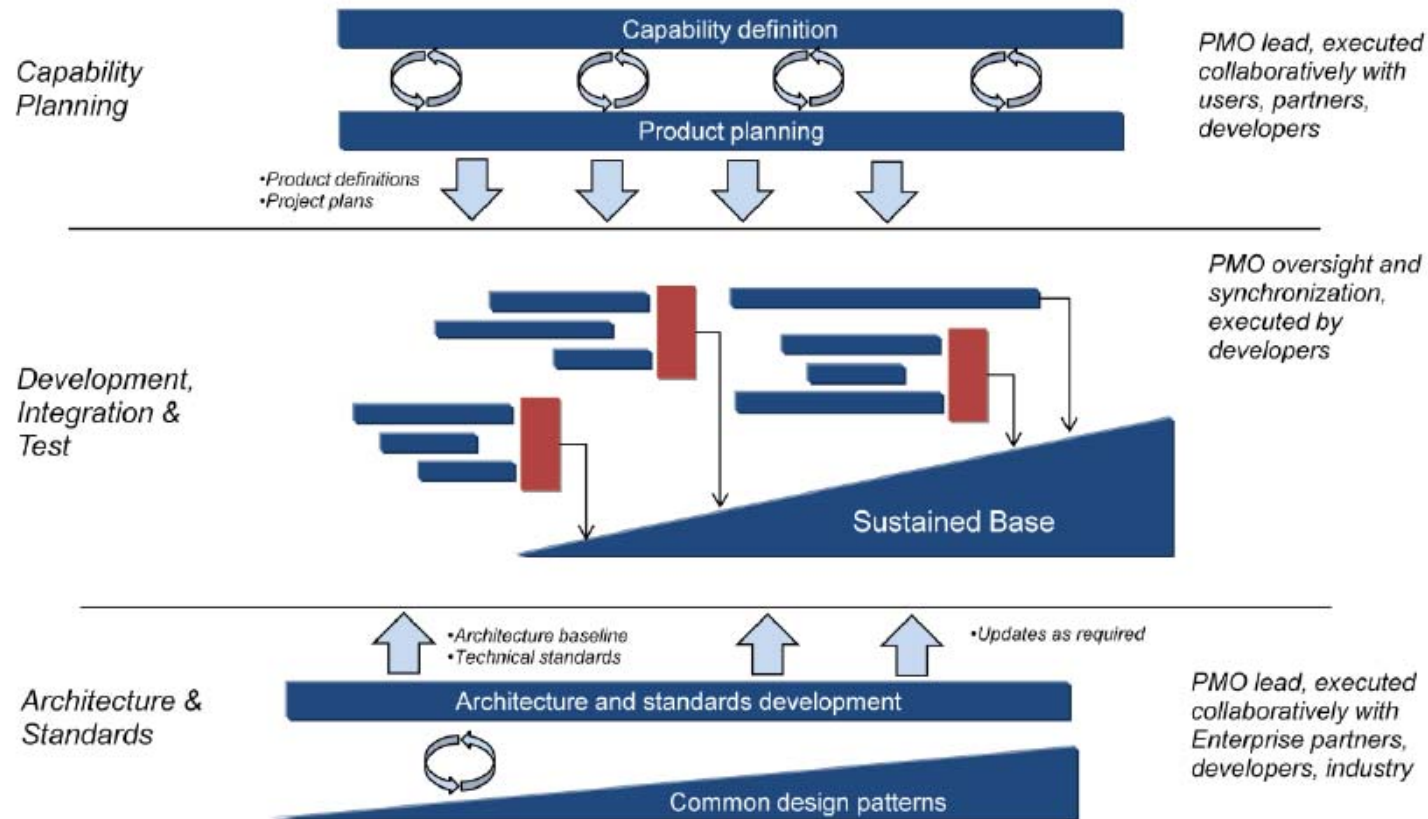


Acquisition Model: Continuous Technology/Requirements Development & Maturation

- Dramatically reduced cycle times
- Ability to accommodate changing requirements
- Complete transparency & involvement of stakeholders (CIO, PA&E, DDR&E, OT&E, Comptroller, etc.) throughout
- Data and visibility to effectively evolve the solution



Dimensions of DSB Acquisition Model





Modernizing Information Technology Acquisition Process Across DoD

Strategic Imperatives and Focus Areas for FY10



What Next ?

Congress May Establish The Timeframe



- **Literature Review, Analysis and Concept Development**
 - Applicability of DSB model to spectrum of existing DoD IT
 - Applicability of DSB model to spectrum of future DoD IT
 - Understand impacts to acquisition process & funding process
 - Certifications, reports to Congress, CSB, PSRs, milestone docs, etc.
 - Business model & contracting approaches
 - Understand impacts to test process
 - Interoperability certification, information assurance certification, IOT&E
 - Understand impacts to requirements process and “IT Box”
 - Process for prioritizing requirements, validating requirements, maturing req’ts
 - Develop “How to Guide” and tools
- **Pilot and Prototype**
 - Development of “how to” guide; training program; & certification criteria
- **Policy Development & Training Certification (due in 270 days)**
 - “Describe the new acquisition process
 - An explanation for any decision by the Secretary to deviate from Section 804
 - Provide a schedule for the implementation of the new acquisition process
 - Identify the categories of information technology acquisitions to which such process will apply
 - Include the Secretary’s recommendations for any legislation that may be required to implement the new acquisition process”..... **2010 NDAA Conf Report**



ASD(NII)/DoD (CIO) Involved in Key Studies



- Defense Science Board Report on DoD Policies and Procedures for Information Technology Acquisition (March, 2009)
- John Gilligan and Acquisition Solutions Inc. Report on Proposed DoD Process for Rapid Acquisition of Information Technology (August, 2009)
- Association For Enterprise Integration (AFEI) – Industry Report on Commercial Best Practices on DoD Acquisition of Service Oriented Architectures (July, 2008)
- National Academies 2-Year Study on Improving Processes and Policies for the Acquisition and Test of Information Technologies in the DoD (Report to be published in Nov, 2009)
- Center for Strategic & International Studies (CSIS) Study on Acquisition of DoD Net Centric Systems (Study contract awarded Sep, 2009)
- Program Deep Dives (NCC – July, ARCI – Aug, Agile – Nov, Cloud+SOA – Dec)



Strategic Imperatives To Address



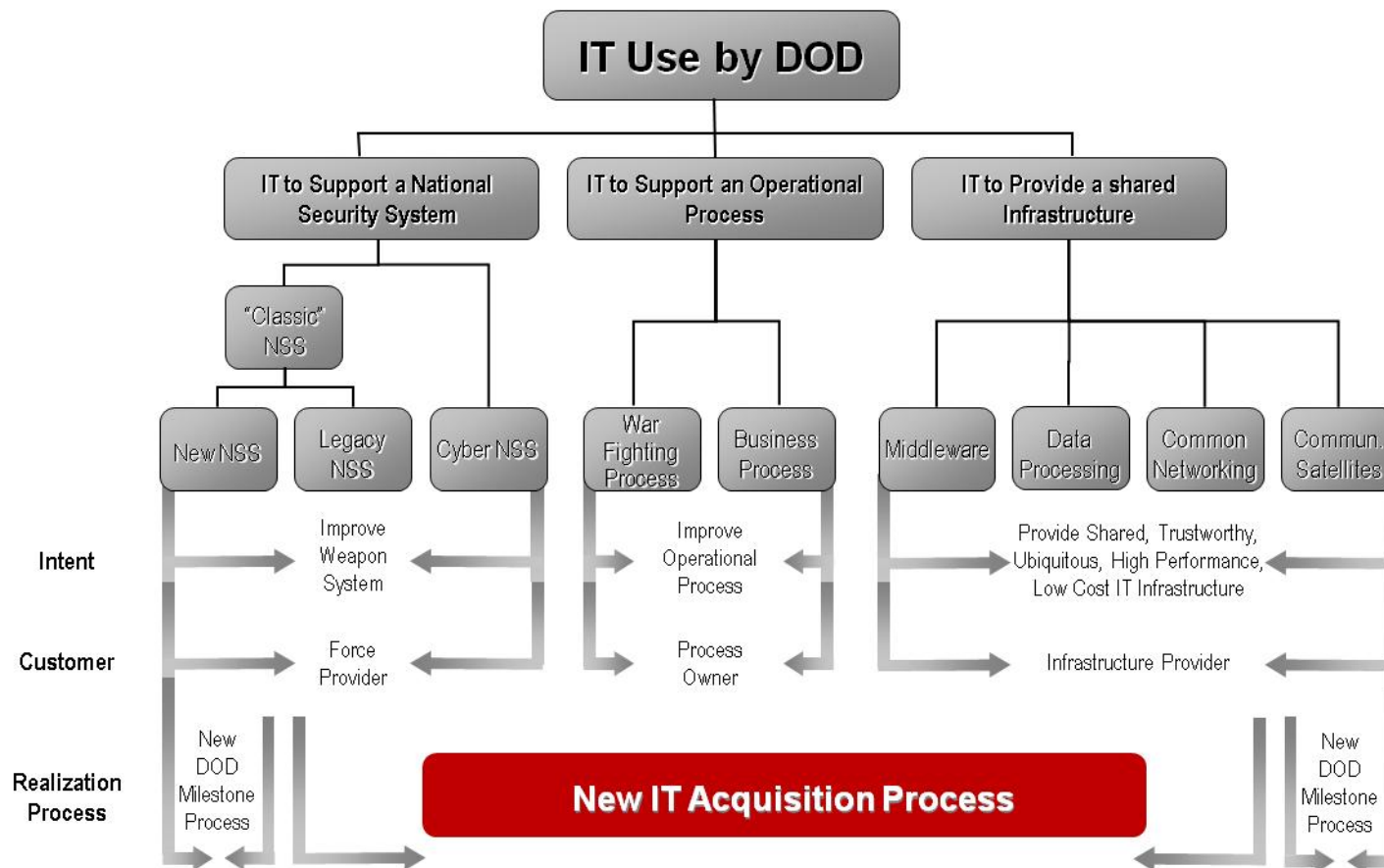
- **Literature Review, Analysis and Concept Development**
 - Applicability of DSB Model to Spectrum of **Existing** DoD IT



DSB's Recommendation



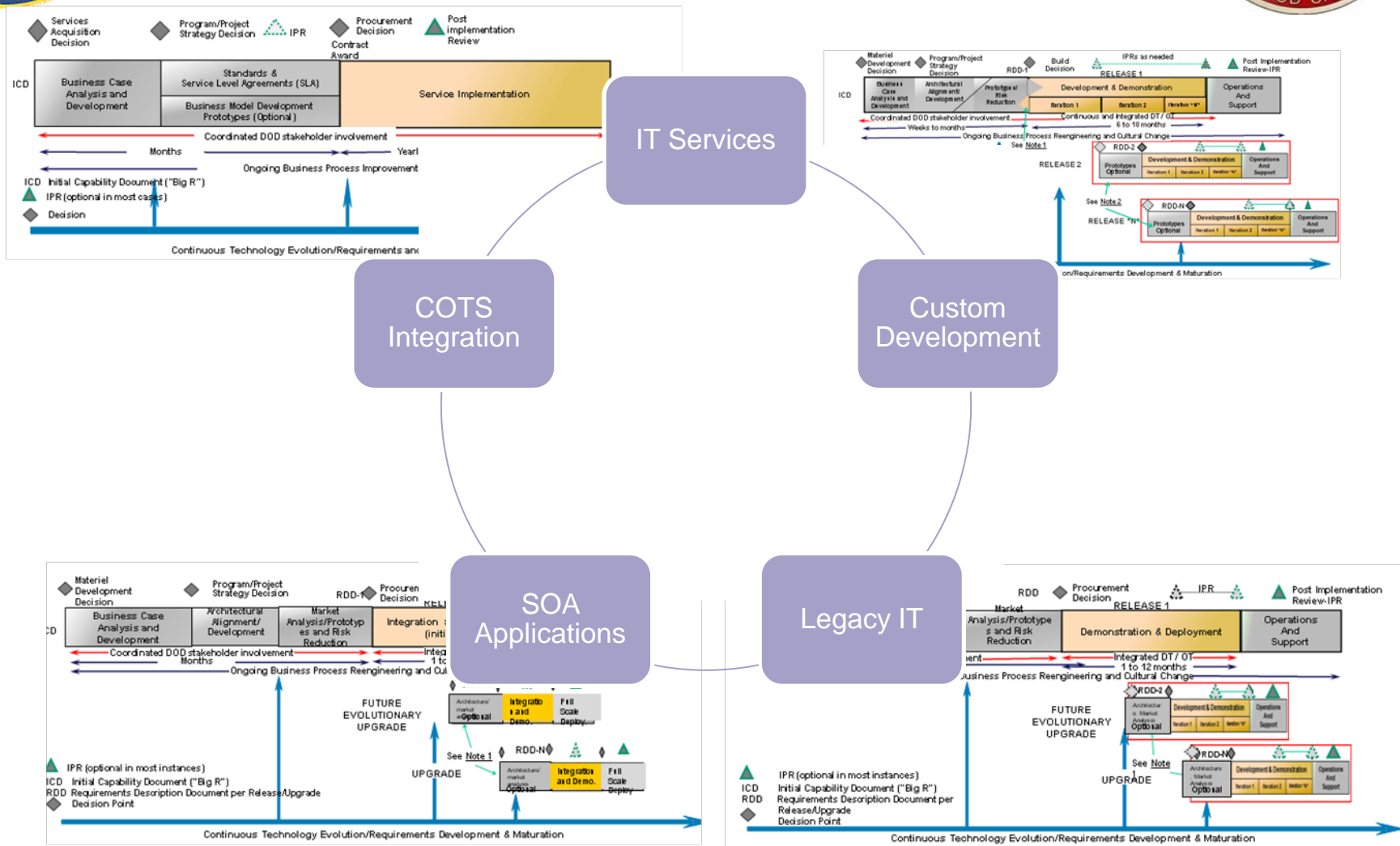
New Process Applicable For The Spectrum of IT





NII/DoD CIO Sponsored 11-Month Study Developed Templates For DSB Process

John Gilligan and ASI Report





Strategic Imperatives To Address



- **Literature Review, Analysis and Concept Development**
 - Applicability of DSB Model to Spectrum of Future DoD IT



Industries Best Practices Regarding SOA Acquisitions



What We Did



An Executive Forum on Business Change

**Industry Recommendations for DoD
Acquisition of Information Services and
SOA Systems**

July 7, 2008

SOA Acquisition Working Group
The Association for Enterprise Integration
An Affiliate of the National Defense Industrial Association

Association for Enterprise Integration
2111 Wilson Boulevard, Suite 400
Arlington, Virginia 22201
www.afei.org

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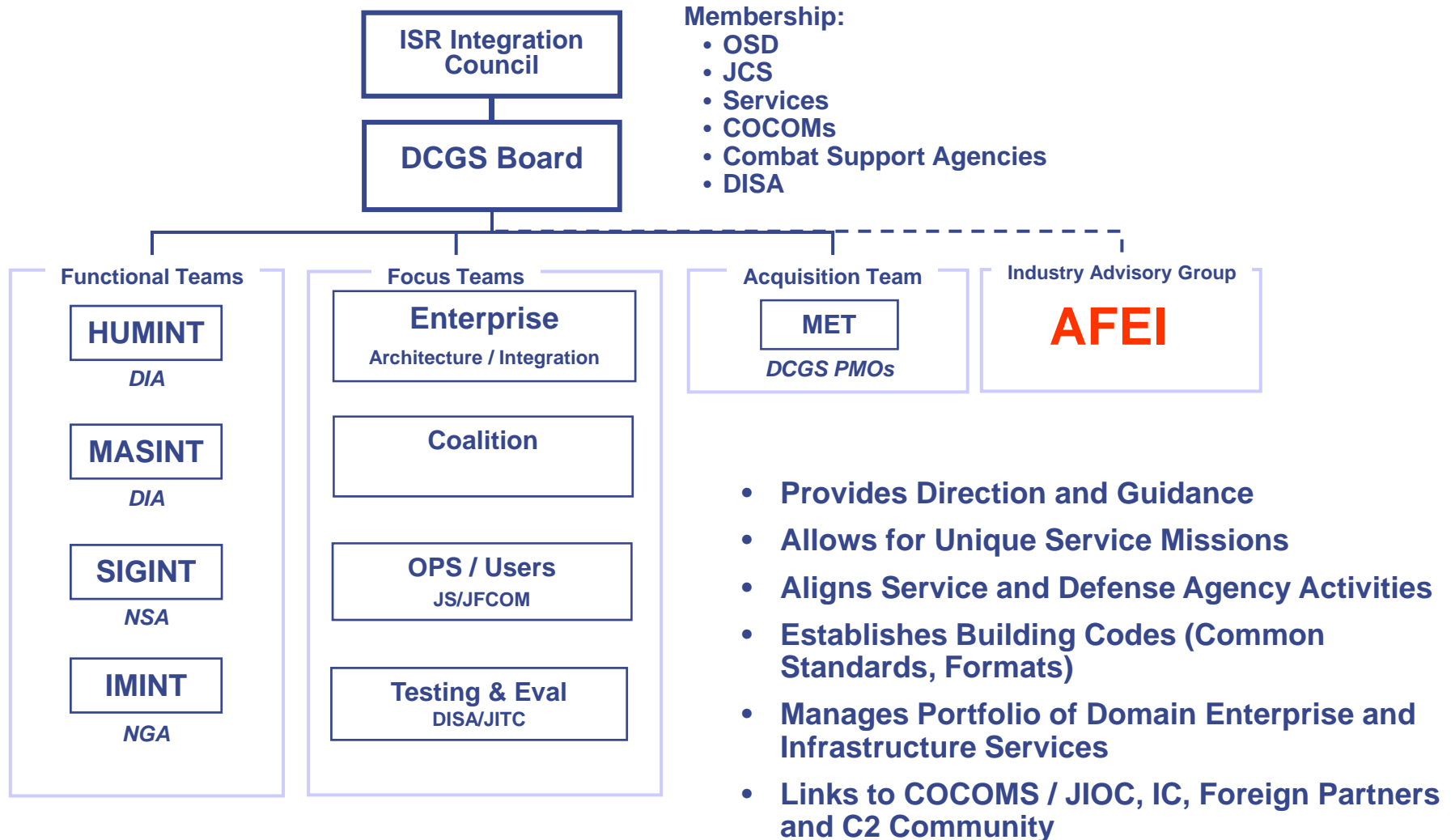
A collaboration between
DoD and industry

For Government Program
Managers and Government
personnel involved in all
information-centric systems

Actionable results and
recommendations can be
implemented on very next
acquisition



NII/DoD (CIO) & USD(I) Partnership in Creating 1st Ever Industry Advisory Group For ISR Governance Structure



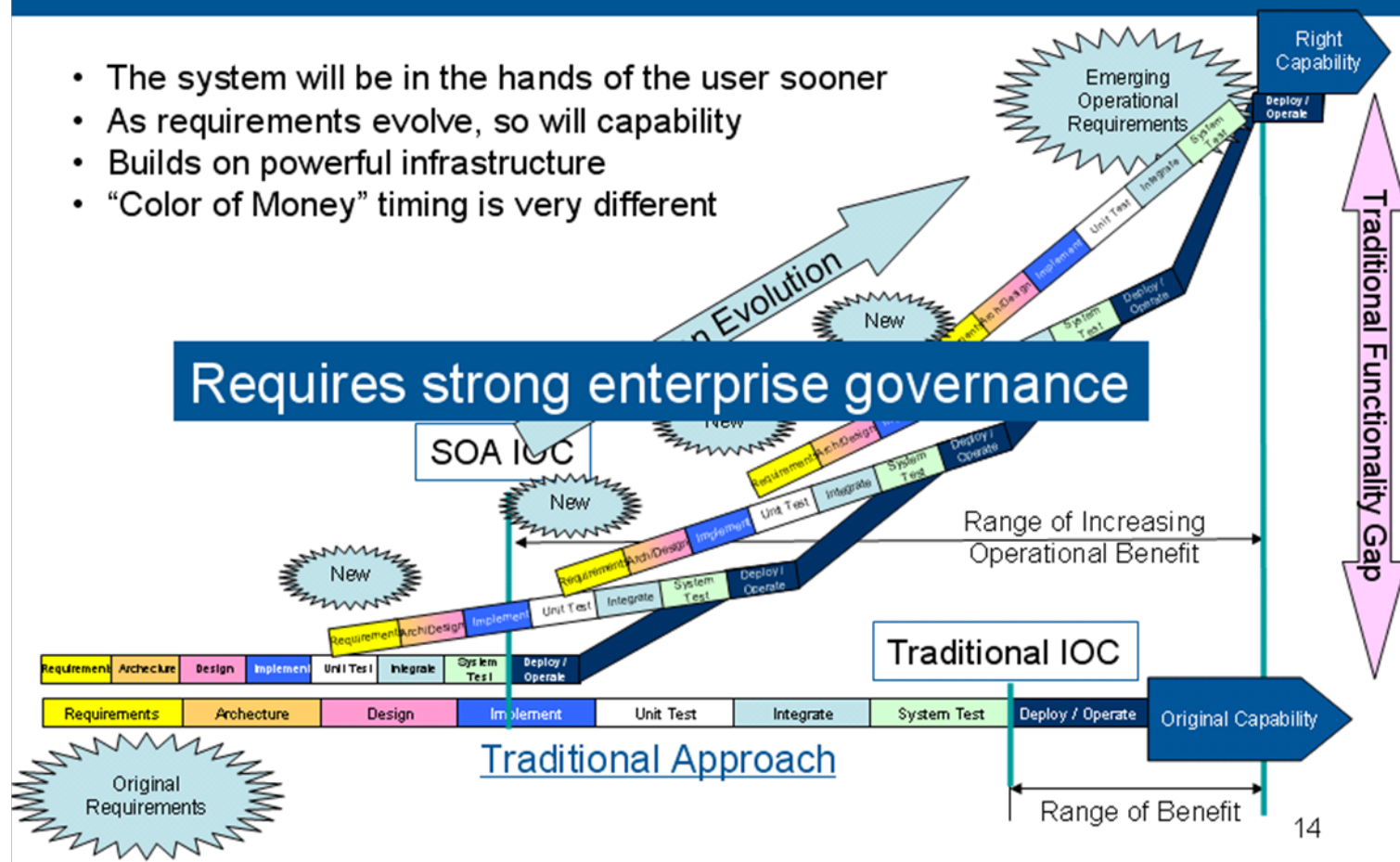


Defense Industry Agree With DSB: Model May Support SOA Acquisitions



SOA Creates New Value

- The system will be in the hands of the user sooner
- As requirements evolve, so will capability
- Builds on powerful infrastructure
- “Color of Money” timing is very different





Need to Work on DoD IT Governance



SOA Needs Governance

- Critical because
 - central “gate” to SOA value creation at the enterprise level
 - drives investments in technology and service delivery

“SOA is about behavior, not something you build or buy. You have to change behavior to make it effective.”

Anne Thomas Manes, *The Elephant has Left the Building*, Intelligent Enterprise,

July 2005





Governance for DSB Model

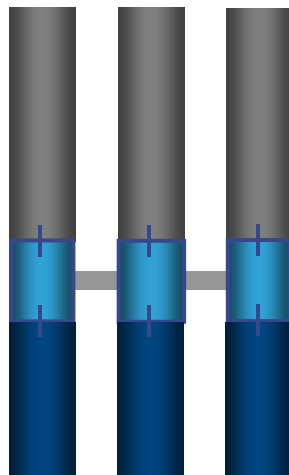
Data and visibility to effectively evolve the solution



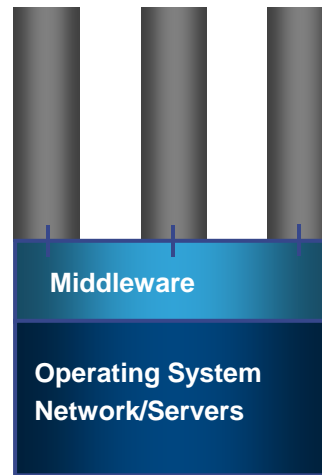
3-Milestone Decisions &
Quarterly DAES



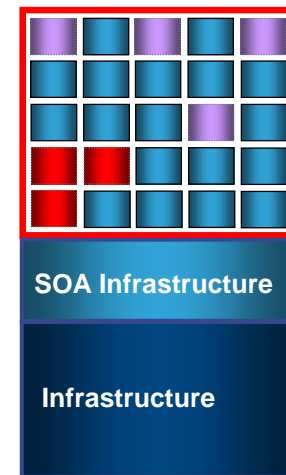
3-Milestone Decisions &
DAES Reporting
MAIS Quarterly Reports
MAIS Annual Reports to Congress



1990/2000



Today



Future

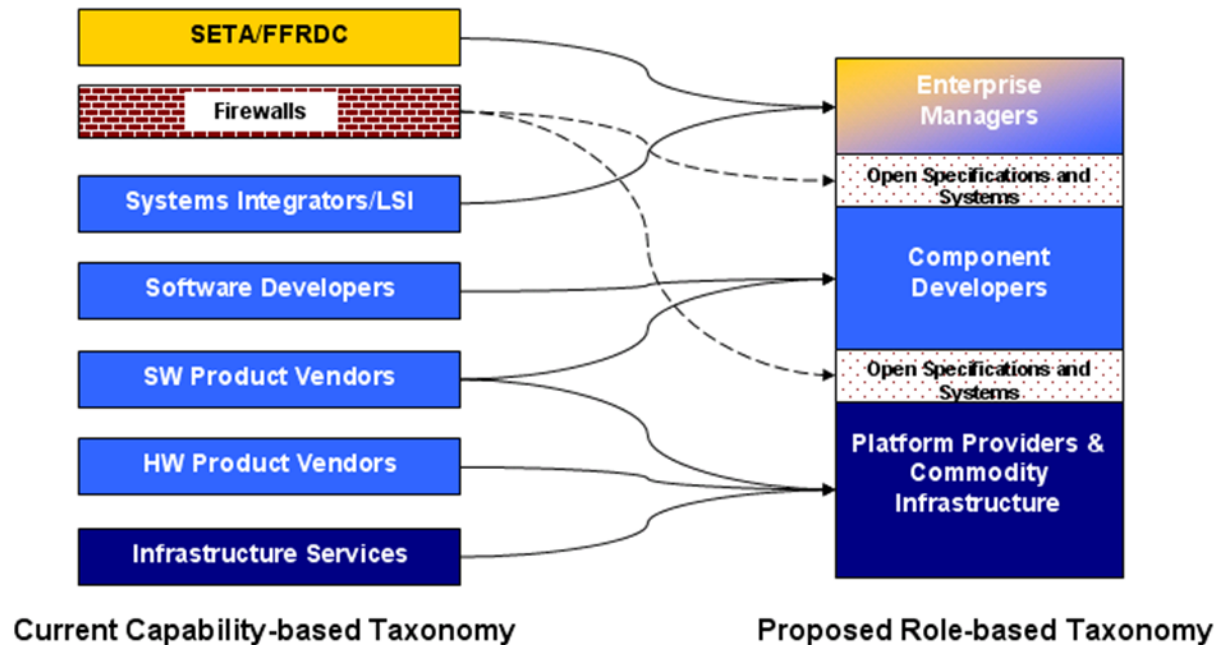
Decision-Making Paradigms, & Oversight
Don't Appear to Support "Evolving" Solutions



Need to Evolve Business Models For SOA Acquisitions



Changing Contractors' Roles



As the market evolves, the roles and how contractors interact must evolve as well.
The traditional firewalls become published open system specifications.



Strategic Imperatives To Address



- **Literature Review, Analysis and Concept Development**
 - Understand impacts to acq/req'ts/test processes



Strategic Imperatives To Address



■ Literature Review, Analysis and Concept Development

- Understand impacts to acq/req'ts/test processes

■ Program Deep Dives

- July: OSD review of NSA program rapidly delivering capability in 2-4 week spins
 - » Attended by 20 action officers/SESs across PA&E, DOT&E, USD(AT&L), DISA, DNI, ASD(NII)/DoD CIO, etc.
- August: Reviewed Navy's ARCI program rapidly delivering commercial IT to nuclear submarine fleet
- Nov 2nd: Expert to present on business value of agile methods
- Dec 4th: Program deep dive on industry implementation of SOA+Cloud applications



What Next ?



- **Pilots and Prototypes ?**



Challenge Ahead



2009 FOREIGN AFFAIRS

Today's acquisition process is resulting in platforms growing even more "baroque"

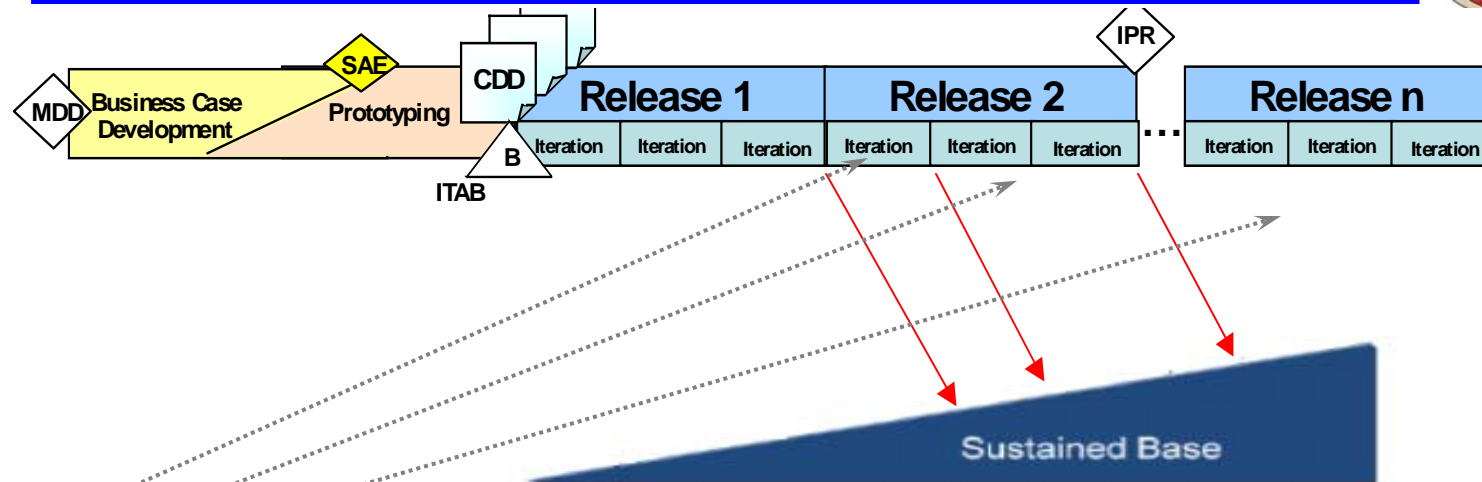
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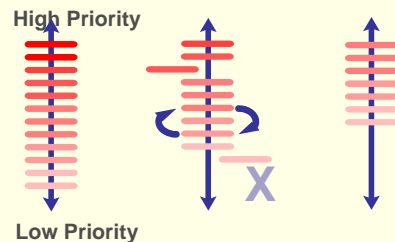


Observations From Program Deep Dives

Requirements Planning is Critical



Requirements/Features Prioritization



Operational Capability

Capability Development Integration & Deployment

- Requirements setting & management critical for IT programs
 - Use Case (scenario) approach to requirements setting provides clarity of functionality & enables reprioritization
 - Modern IT requirements management practices sets rapid development tempo & daily transparency
- Releases/Iterations are time-box delivery of mission capability
 - Releases are delivered on the network and systems infrastructure before the next Release is delivered
 - Iterations are small tested, integrated, and potentially deployable subsets of functionality



Observations From Program Deep Dives

Requirements Planning **is Critical**



- Functional Manager & Functional Management Office
 - Develop a process to mature requirements
 - Develop methodology to prioritize requirements
 - Develop an approach to decompose requirements
- Flag-level Board to Validate Prioritize Requirements

